AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 1, line 15, with the following rewritten paragraph:

V_{be} of a bipolar transistor decreases with increasing temperature in a well-known fashion. See Fig. 3. It is also known that a current mirror can be used to obtain a voltage representative of ~~proportional to~~ ΔV_{be} i.e., the difference between the V_{be} of two bipolar transistors. Figure 2 shows such a current mirror circuit. ΔV_{be} is equal to V_{be2} minus V_{be1} and ΔV_{be} is equal to kt/q ln NI/I. ΔV_{be} depends upon the ratio of the currents of the current sources as well as the temperature. In particular, ΔV_{be} increases with temperature. See Fig. 3. By combining the two circuits, it is possible to compensate V_{be} of a first transistor with ΔV_{be} obtained via two other transistors Q1 and Q2, to obtain a substantially constant reference voltage Vref as shown in Fig. 3. In particular, Vref is equal to a constant A times V_{be} plus a constant B times ΔV_{be}.

Please replace the paragraph beginning at page 2, line 12, with the following rewritten paragraph:

According to one aspect, the invention comprises a bandgap voltage reference circuit comprising a first circuit providing a first voltage representative of ~~substantially proportional to~~ V_{be} of a first bipolar transistor, a second circuit providing a second voltage ΔV_{be} representative of ~~substantially proportional to~~ the difference of two V_{be} voltages of two bipolar transistors; and a comparator having respective inputs which receive voltages representative of ~~coupled to~~ V_{be} and ΔV_{be} and an output coupled to the base of the first bipolar transistor whereby a voltage representative of ~~substantially proportional to~~ the sum of respective constants multiplying V_{be} and ΔV_{be} is provided at the output of the comparator.

Please replace the paragraph beginning at page 2, line 20, with the following rewritten paragraph:

According to another aspect, the invention comprises a bandgap voltage reference circuit comprising a first bipolar transistor providing substantially a reference voltage V_{be}, a current mirror circuit comprising two bipolar transistors coupled in a current mirror arrangement for providing a voltage difference ΔV_{be} comprising substantially a difference signal between the respective V_{be} voltages of the two bipolar transistors; and a comparator having respective inputs which receive voltages representative of ~~coupled to~~ V_{be} and ΔV_{be} and an output coupled to the base of the first bipolar transistor whereby a voltage representative of ~~substantially proportional to~~ the sum of respective constants multiplying V_{be} and ΔV_{be} is provided at the output of the comparator.

Please replace the paragraph beginning at page 3, line 3, with the following rewritten paragraph:

According to yet another aspect, the invention comprises a bandgap voltage reference circuit comprising a first circuit providing a first voltage representative of ~~substantially proportional to~~ V_{be} of a first bipolar transistor, a second circuit providing a second voltage ΔV_{be} representative of ~~substantially proportional to~~ the difference of two V_{be} voltages of two bipolar transistors, and a comparator having respective inputs which receive voltages representative of ~~coupled to~~ V_{be} and ΔV_{be} and an output coupled to the base of the first bipolar transistor whereby a substantially temperature independent voltage refererence is provided at the output of the comparator.

Please replace the paragraph beginning at page 3, line 24, with the following rewritten paragraph:

According to the invention, a new implementation for deriving the voltage bandgap reference Vref is provided. As shown in Fig.4, a bipolar transistor Q1 provides V_{be}. The emitter of the bipolar transistor Q1 is coupled to a resistor divider comprising resistors R1 and R2. The output of the divider is provided to a comparator UI inverting input. The non-inverting input of the comparator ~~UI~~ UI is provided to the voltage source comprising ΔV_{be}, which may be generated by the circuit of Fig. 2 . The output of the comparator is provided back to the input IN'. This results in the following equations: